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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,684	12/06/2005	Teiichi Inada	1204.45675X00	1866
20457 7590 03/17/2008 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER				
SELLERS, ROBERT E				
ART UNIT		PAPER NUMBER		
1796				
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03/17/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/559,684

**Applicant(s)**

INADA ET AL.

**Examiner**

Robert Sellers

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 54-64 is/are pending in the application.
- 4a) Of the above claim(s) 64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 54-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

1. New claims 54-63 are supported by original claims 2-4, 6, 10 and 28 with respect to new claims 54-57, 59 and 60, and the specification in the paragraph bridging pages 16-17 regarding claims 58, 61 and 62.

2. Newly submitted claim 64 is directed to an invention that is distinct from the invention originally claimed because the claimed adhesive sheet laminated with a dicing tape onto a wafer is a structurally different article from the adhesive sheet alone of claims 54-63.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 64 is withdrawn from consideration as being directed to a non-elected invention (37 CFR 1.142(b) and MPEP § 821.03).

3. Withdrawn claim 64 is not supported by pages 23 and 25 of the specification since page 23 describes the sticking of the adhesive sheet onto a semiconductor wafer and sticking a dicing tape onto the adhesive sheet as opposed to the claimed laminating. The claimed wafer is broader than the disclosed semiconductor wafer. Page 25 merely sets forth the rendering of the wafer to permit cutting and does not refer to the term "stealth dicing." The definition of "stealth dicing" is unknown.

4. The obviousness-type double patenting rejections are withdrawn based on the terminal disclaimer filed September 12, 2007 whose fee has been paid according to the Electronic Patent Application Fee Transmittal (page 2) generated on the same date.

The text of sections 102(a, b and e) and 103(a) of Title 35, U.S. Code not included in this action can be found in the non-Final rejection mailed March 12, 2007.

Claims 58 and 61 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese Patent No. 2002-280494 (Japanese '494).

5. Japanese '494 is no longer applicable to claims 54-57, 59, 60 and 63 limited to an acrylic rubber which is different from the prior art polyamic acid. However, claims 50 and 61 require 50% or less, and 35% or less, respectively, of the acrylic rubber, thereby encompassing 0% of the acrylic rubber which broadens the polymer component to embrace the polyamic acid.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 54-63 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed.

6. The capability of the adhesive sheet to be laminated with dicing tape onto a wafer and subjected to stealth dicing denoted in independent claim 54 is not substantiated by pages 23 and 25 of the specification for the reasons espoused in paragraph 3 hereinabove.

Claims 54, 58, 60 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Yanagiuchi et al. Patent No. 6,521,337.

Claims 55-57 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yanagiuchi et al.

The rejections are maintained for the reasons of record set forth in the non-Final rejection. The arguments filed January 17, 2007 have been considered but are unpersuasive.

7. The claims merely require an adhesive in the form of a sheet having the capability of being laminated with dicing tape onto a wafer and subjected to stealth dicing. There are no limitations necessitating the adhesive sheet to be laminated with dicing tape onto a wafer and stealth dicing the laminate. Yanagiuchi et al. reports an adhesive layer 3 (col. 3, line 24) having a thickness of from about 5  $\mu\text{m}$  to about 100  $\mu\text{m}$  (col. 3, line 66 to col. 4, line 2) overlapping the range of claim 69 composed of particularly preferably an acrylic resin (col. 3, lines 49-60) exhibiting a breaking strength of from about 0.196 MPa to about 4.9 MPa (col. 2, lines 43-49) and a breaking elongation of from about 10% to about 150% (col. 2, lines 50-61).
8. Based on the form of the prior art adhesive as a layer (Figure 1, item 3) formed from an acrylic resin along with a thickness, breaking strength and breaking elongation within the claimed parameters, the adhesive sheet of Yanagiuchi et al. is equivalent to the claimed adhesive sheet regardless of the ultimate utility.

Claims 54-63 are rejected under 35 U.S.C. 102(a, b or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the following references:

Inada et al. Patent No. 5,965,269,  
Tomiya et al. Patent No. 7,070,670,  
Shimada et al. Patent No. 6,090,468,  
Yamamoto et al. Patent No. 6,265,782,  
Tanaka et al. Patent No. 6,673,441,  
Teiichi et al. Publication No. 2003/0069331, and

Japanese Patent Nos, 9-298369, 9-302313, 2000-248025 and 2002-60716.

The rejections are maintained for the reasons of record set forth in the non-Final rejection. The arguments filed January 17, 2007 have been considered but are unpersuasive.

9. The word "sheet" includes any free-standing non-continuous form having any thickness, thereby embracing the adhesive films of the references. The claimed capability of the adhesive sheet to be laminated with dicing tape onto a wafer and stealth diced merely indicates the future intended use of the adhesive sheet and is not a critical limitation. Based on the equivalent mixtures of epoxy resin and epoxy group-containing acrylic copolymers of the references in the form of adhesive films, the prior art adhesive films inherently possess the capability of being laminated with dicing tape onto a wafer and being steal diced.

The amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL** (MPEP § 706.07(a)).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Robert Sellers/

Robert Sellers  
Primary Examiner  
Division 1796